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Attorney's Docket No.: 10559-154001 / P7988

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Dean P. Macri et al.
Serial No. : 09/539,343
Filed : March 31, 2000
Title : TRIMMING SURFACES

Art Unit : 2672
Examiner : Good Johnson, Motilewa

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Consideration of the references listed on the attached form PTO-1449 is respectfully requested. Paper copies of non-U.S. patent references are being supplied.

This statement is being filed after a first Office action on the merits, but before receipt of a final Office action or a Notice of Allowance. Please apply the $180 late submission fee of C.F.R. § 1.17(p) and any other charges or credits to Deposit Account No. 06-1050, referencing Attorney Docket No. 10559-154001.

Respectfully submitted,

Date: January 5, 2005

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Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 10559-154001	Application No. 09/539,343
Information Disclosure Statement by Applicant (Use several sheets if necessary)		Applicant Dean P. Macri et al.	
(37 CFR §1.98(b))		Filing Date March 31, 2000	Group Art Unit 2672

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PATENT & TRADEMARK OFFICE

U.S. Patent Documents

Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	AA	4,600,919	07-1986	Stern			
	AB	4,747,052	05-1988	Hishinuma et al.			
	AC	4,835,712	05-1989	Drebin et al.			
	AD	4,855,934	08-1989	Robinson			
	AE	4,901,064	02-1990	Deering			
	AF	5,124,914	06-1992	Grangeat			
	AG	5,163,126	11-1992	Einkauf et al.			
	AH	5,371,778	12-1994	Yanof et al.			
	AI	5,611,030	03-1997	Stokes			
	AJ	5,731,819	03-1998	Gagne et al.			
	AK	5,757,321	05-1998	Billyard			
	AL	5,786,822	07-1998	Sakaibara			
	AM	5,805,782	09-1998	Foran			
	AN	5,809,219	09-1998	Pearce et al.			
	AO	5,812,141	09-1998	Kamen et al.			
	AP	5,847,712	12-1998	Salesin et al.			
	AQ	5,894,308	04-1999	Isaacs			
	AR	5,929,860	07-1999	Hoppe			
	AS	5,933,148	08-1999	Oka et al.			
	AT	5,949,969	09-1999	Suzuoki et al.			
	AU	5,966,133	10-1999	Hoppe			
	AV	5,966,134	10-1999	Arias			
	AW	5,974,423	10-1999	Margolin			
	AX	6,054,999	04-2000	Strandberg			
	AY	6,057,859	05-2000	Handelman et al.			
	AZ	6,078,331	06-2000	Pulli et al.			
	AAA	6,115,050	09-2000	Landau et al.			

Examiner Signature	Date Considered

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U.S. Patent Documents

Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	ABB	6,175,655	01-2001	George et al.			
	ACC	6,191,787	02-2001	Lu et al.			
	ADD	6,191,796	02-2001	Tarr			
	AEE	6,198,486	03-2001	Junkins et al.			
	AFF	6,201,549	05-2001	Bronskill			
	AGG	6,208,347	03-2001	Migdal et al.			
	AHH	6,219,070	04-2001	Baker et al.			
	AII	6,239,808	05-2001	Kirk et al.			
	AJJ	6,252,608	06-2001	Snyder et al.			
	AKK	6,262,737	07-2001	Li et al.			
	ALL	6,262,739	07-2001	Migdal et al.			
	AMM	6,292,192	09-2001	Moreton			
	ANN	6,317,125	11-2001	Persson			
	AOO	6,337,880	01-2002	Cornog et al.			
	APP	6,388,670	05-2002	Naka et al.			
	AQQ	6,405,071	06-2002	Analoui			
	ARR	6,437,782	08-2002	Pieragostini et al.			
	ASS	6,478,680	11-2002	Yoshioka et al.			
	ATT	6,559,848	05-2003	O'Rourke			
	AUU	6,593,924	07-2003	Lake et al.			
	AVV	6,593,927	07-2003	Horowitz et al.			
	AWW	6,608,627	08-2003	Marshall et al.			
	AXX	6,608,628	08-2003	Ross et al.			
	AYY	2001/0026278	10-2001	Arai et al.			
	AZZ	2002/0101421	08-2002	Pallister			

Foreign Patent Documents or Published Foreign Patent Applications

Examiner	Desig.	Document	Publication	Country or	Class	Subclass	Translation

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							Yes	No
	AAAA							

Other Documents (include Author, Title, Date, and Place of Publication)		
Examiner Initial	Desig. ID	Document
	ABBB	Alliez et al., "Progressive Compression for Lossless Transmission of Triangle Meshes," ACM SIGGRAPH 2001, pgs. 195 - 202 (2001).
	ACCC	Appel, Arthur, "The Notion of Quantitative Invisibility and the Machine Rendering of Solids." Proceedings of 22nd National Conference Association for Computing Machinery 1967.
	ADDD	Bajaj et al., "Progressive Compression and Transmission of Arbitrary Triangular Meshes," IEEE, pgs. 307 - 316 (1999).
	AEEE	Buck et al., "Performance-Driven Hand Drawn Animation", ACM (NPAR2000), pgs. 101 - 108 (2000).
	AFFF	Catmull et al., "Recursively Generated B-Spline Surfaces on Arbitrary Topological Meshes," Computer Aided Design, 10(6):350 - 355 (1978).
	AGGG	Chow, M., "Optimized Geometry Compression for Real-time Rendering," IEEE, pgs. 347-354 (1997).
	AHHH	Coelho et al., "An Algorithm for Intersecting and Trimming Parametric Meshes", ACM SIGGRAPH, pgs. 1 - 8 (1998).
	AIII	Cohen-Or, D. et al., "Progressive Compression of Arbitrary Triangular Meshes," IEEE Visualization 99 Conference Proc., pgs. 67 - 72 (1999).
	AJJJ	Deering, M., "Geometry Compression," *Computer Graphics*. SIGGRAPH '95, pages 13-20, 1995.
	AKKK	DeRose et al., "Subdivisional Surfaces in Character Animation", ACM, SIGGRAPH'98, pgs. 85 - 94 (1998).
	ALLL	Dyn, N. et al., "A Butterfly Subdivision Scheme for Surface Interpolation with Tension Control," ACM Transactions on Graphics, 9(2):160 - 169 (1990).
	AMMM	Elber, Gershon, "Line Art Rendering via a Coverage of Isoperimetric Curves," IEEE Transactions on Visualization and Computer Graphics, 1(3):231 - 239 (1995).
	ANNN	Elber, Gershon, "Interactive Line Art Rendering of Freeform Surfaces", Eurographics'99, 18(3):C1 - C12 (1999).
	AOOO	Gooch et al., "A Non-Photorealistic Lighting Model for Automatic Technical Illustration," Computer Graphics Proceedings, Annual Conference Series, SIGGRAPH'98, pgs. 447-452 (1998).
	APPP	Gooch et al., "Interactive Technical Illustration," ACM Interactive 3D, pgs. 31 - 38 (1999).

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PATENT & TRADEMARK OFFICE

Other Documents (include Author, Title, Date, and Place of Publication)

Examiner Initial	Desig. ID	Document
	AQQQ	Heidrich et al., "Realistic, Hardware-Accelerated Shading and Lighting," ACM, (SIGGRAPH'99), pgs. 171 - 178 (1999).
	ARRR	Hoppe, H., "Progressive Meshes," URL: http://www.research.microsft.com/research/graphics/hoppe/, (10 pgs.).
	ASSS	Hoppe, H., "Efficient Implementation of Progressive Meshes," Comput. & Graphics, 22(1), pgs. 27 - 36 (1998).
	ATTT	Hoppe, H., "View-Dependent Refinement of Progressive Meshes", URL: http://www.research.microsoft.com/~hoppe/ (10 pgs.).
	AUUU	Kumar et al., "Interactive Display of Large Scale NURBS Models", ACM, Symp. On Interactive 3D Graphics, pgs. 51 - 58 (1995).
	AVVV	Lake et al., "Stylized Rendering Techniques for Scalable Real-Time 3D Animation", NPAR, pgs. 101 - 108 (2000).
	AWWW	Lander, Jeff, "Making Kine More Flexible,"Game Developer Magazine, 5 pgs., November 1998.
	AXXX	Lander, Jeff, "Skin Them Bones," Game Developer Magazine, 4 pgs., May 1998.
	AYYY	Lansdown et al., "Expressive Rendering: A Review of Nonphotorealistic Techniques," IEEE Computer Graphics & Applications, pgs. 29-37 (1995).
	AZZZ	Lasseter, J. et al., "Principles of Traditional Animation Applied to 3D Computer Animation," ACM, pgs. 35 - 44 (1987).
	AAAAA	Lee, M. et al., "Navigating Through Triangle Meshes Implemented as Linear Quadtrees," ACM Transactions on Graphics, 19(2):79 - 121 (2000).
	ABBBB	Lewis, J. P. et al., "Pose Space Deformation: A Unified Approach to Shape Interpolation and Skeleton-Driven Deformation," ACM, (SIGGRAPH 2000), pgs. 165 - 172 (2000).
	ACCCC	Ma et al., "Extracting Feature Lines for 3D Unstructured Grids," IEEE, pgs. 285 - 292 (1997).
	ADDDD	Markosian, L. et al., "Real-Time Nonphotorealistic Rendering," SIGGRAPH'97, 6 pgs. (1997).
	AEEEE	Pajarola et al., "Compressed Progressive Meshes" IEEE Transactions on Visualization and Computer Graphics, 6(1):79 - 93 (2000).
	AFFFF	Pedersen, "A Framework for Interactive Texturing on Curved Surfaces", ACM, pgs. 295 - 301 (1996).
	AGGGG	"pmG Introduces Messiah: Animate 3.0", URL: http://www.digitalproducer.com/aHTM/Articles/july_2000/july_17_00/pmg_intros_messiah_animate.htm (Accessed 10/26/2004) 2 pgs.

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PATENT & TRADEMARK OFFICE

Other Documents (include Author, Title, Date, and Place of Publication)

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	AHHHH	Popovic et al., "Progressive Simplicial Complexes" Microsoft Research, http://www.research.microsft.com/~hoppe/
	AIIII	Pueyo, X. et al., "Rendering Techniques '96," Proc. of Eurographics Rendering Workshop 1996, EUROGRAPHICS, p[gs. 61 - 70 (1996).
	AJJJJ	Raskar, R. et al., "Image Precision Silhouette Edges," Symposium on Interactive 3D Graphics, ACM, pgs. 135-231 (1999)
	AKKKK	Rockwood, A. et al., "Real-time Rendering of Trimmed Surfaces," Computer Graphics (SIGGRAPH '89 Proceedings) 23:107 - 116 (1989).
	ALLLL	Samet, Hanan, "Applications of Spatial Data Structures: Computer Graphics, Image Processing, and GIS," University of Maryland, Addison-Wesley Publishing Company, 1060-1064, Reading, MA, June 1990
	AMMMM	Sousa, M., et al., "Computer-Generated Graphite Pencil Rendering of 3-D Polygonal Models", Eurographics'99, 18(3):C195 - C207 (1999).
	ANNNN	Stam, J., "Exact Evaluation of Catmull-Clark Subdivision Surfaces at Arbitrary Parameter Values", SIGGRAPH 98 Conference Proceedings, Annual Conference Series, pgs. 395-404 (1998).
	AOOOO	Taubin et al., "3D Geometry Compression", SIGGRAPH'98 Course Notes (1998).
	APPPP	Taubin et al., "Progressive Forest Spilt Compression," IBM T.J. Watson Research Center, 9 pgs. (1998).
	AQQQQ	Thomas (Contributor) et al., "The Illusion of Life: Disney Animation" 47-51
	ARRRR	Wilhelms, J. & Van Gelder, A., "Anatomically Based Modeling," Univ. California Santa Cruz [online], 1997 [retrieved 12/22/2004], retrieved from the Internet: <URL: http://graphics.stanford.edu/courses/cs448-01-spring/papers/wilhelms.pdf>.
	ASSSS	Zeleznik et al., "SKETCH: An Interface for Sketching 3D Scenes" Brown University site of the NSF Science and Technology Center for Computer Graphics and Scientific Visualization, 1996
	ATTTT	Zorin "Interpolation Subdivision for Meshes With Arbitrary Topology" Department of Computer Science, California Institute of Technology, Pasadena, CA

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